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| 10/646,753 | 08/25/2003 | Hirokazu Kameyama | Q77095 | 1291 |
| 23373 | 7590 | 09/03/2008 | | |
| SUGHTRUE MION, PLLC | | | EXAMINER | |
| 2100 PENNSYLVANIA AVENUE, N.W. | | | SMITH, JEFFREY S | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/646,753 | Applicant(s) KAMEYAMA ET AL. |
| | Examiner JEFFREY S. SMITH | Art Unit 2624 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 August 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 86,87,89,90,92,93 and 95-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 86,87,89,90,92,93 and 95-101 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 12/07
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Appropriate correction is required.

The amendment filed 9/20/2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "whose value increases or decreases in correspondence to a reference level of the similarity" is new matter. Also, "whose values increase or decrease in correspondence to a reference level of the similarity" is new matter. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 86-87, 89-90, 92-93, 95-101 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. The element "whose value increases or decreases in correspondence to a reference level of the similarity" is new matter. Also, "whose values increase or decrease in correspondence to a reference level of the similarity" is new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 87-88, 90-91, 93-94 and 98 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 87 recites "said desired frame is partitioned into a plurality of areas" and claim 88 recites "said desired frame is partitioned into a plurality of subject areas that are included in said desired frame." The distinction between a "plurality of areas" and a "plurality of subject areas" as recited in claims 87 and 88 is not defined. In other words, a "plurality of areas" of a frame includes a "a plurality of subject areas." This is supported by new claims 95-97 which define the plurality of areas as a plurality of subject areas. This means that "a plurality of areas" of a frame is a "plurality of subject areas," therefore claim 88 contains the same limitations as claim 87, and is identical to claim 87. Claim 90 is also identical to claim 91, and claim 93 is identical to claim 94.

Claim 98 is identical to claim 89 and adds no further limitation. Both claims obtain a weighting coefficient whose value increases or decreases in correspondence to a reference level of similarity for at least one frame which is

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before or after the desired frame. The phrase "at least one frame which is temporally before and one frame which is temporally after" still is only one frame as stated in the rest of claim 98.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 86-87, 89-90, 92-93, 95-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Unexamined Patent Publication No. 2001-177714 ("714) in view of Japanese Unexamined Patent Publication No. 2000-354244 ("244) and International Publication No. 00/008860 ("860), all of which were cited by applicant in the response mailed August 4, 2008.

For claim 86, '714 discloses a method of acquiring a processed frame by performing image processing on a desired frame sampled from a video image, said method comprising the steps of: computing a similarity between said desired frame and at least one frame which is temporally before and one frame which is temporally after said desired frame; and acquiring said processed frame by obtaining a weighting coefficient whose value increases or decreases in correspondence to a reference level of the similarity, then weighting said at least one frame with said weighting coefficient, and synthesizing said weighted frame

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and said desired frame as disclosed in the abstract, paragraph 98 and in claims 1, 2, 7, 8, 13 and 14 of this reference.

'244 and '860 also disclose weighting ('860 abstract) and synthesizing ('244 abstract). The Supreme Court has held that in analyzing the obviousness of combining elements, a court need not find specific teachings, but rather may consider "the background knowledge possessed by a person having ordinary skill in the art" and "the inferences and creative steps that a person of ordinary skill would employ." See *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41,82 USPQ2d 1385, 1396 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* Given that the functions recited in claim 87 are known, combining the functions would achieve a predictable result.

Given that claims 89, 92 and 98 recite these elements in apparatus and computer program formats, these claims are rejected for these reasons also.

For claim 87, '244 discloses desired frame is partitioned into a plurality of areas; said similarity is computed for each of corresponding areas in said at least one frame which correspond to said plurality of areas; and said processed frame is acquired by obtaining weighting coefficients whose values increase or decrease in correspondence to a reference level of the similarity, then weighting said corresponding areas of said at least one frame with said weighting coefficients, and synthesizing said weighted areas and said plurality of areas in paragraphs 35-42.

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Given that claims 90 and 93 recite these elements in apparatus and computer readable format, these claims are rejected for these reasons also.

For claim 95, both '244 and '860 disclose wherein a motion vector is computed for each area of said plurality of areas; said areas are grouped into a plurality of subject areas based on said motion vector of each area of said plurality of areas; said similarity is computed for each of corresponding subject areas in said at least one frame which correspond to said plurality of subject areas; and said processed frame is acquired by obtaining weighting coefficients whose values increase or decrease in correspondence to a reference level of the similarity, then weighting said corresponding subject areas of said at least one frame with said weighting coefficients, and synthesizing said weighted subject areas and said plurality of subject areas.

Given that claims 96 and 97 recite these elements, these claims are rejected for these reasons also.

For claim 99, all three references disclose wherein a magnitude of said motion vector for each area of said plurality of areas is calculated; and said plurality of subject areas comprises a first subject area including areas of said plurality of areas having a motion vector magnitude that has increased relative to said frame which is temporally before said desired frame, and a second subject area including areas of said plurality of areas having a motion vector magnitude

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that has decreased relative to said frame which is temporally before said desired frame (see for example '714 abstract).

Given that claims 100 and 101 recite these elements, these claims are rejected for these reasons also.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY S. SMITH whose telephone number is (571)270-1235. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSS

August 27, 2008

/Samir A. Ahmed/
Supervisory Patent Examiner, Art Unit 2624